

## Appendix G — Precommercial thinning examples for Alternative D

### 1. **Planted white pine**

*Daylight* thinning may be allowed in planted rust-resistant white pine if 80 percent of the snowshoe hare forage is retained. The maximum reduction in snowshoe hare forage and cover would be 20 percent. Allow local variations in spacing, depending on levels of rust-resistance and white pine stocking.

Researchers suggest the clearing radius be at least four feet and suggest the optimum competitive advantage is gained at ten feet. To keep the reduction in hare forage under 20 percent, a four-foot radius would allow daylight thinning around a maximum of 173 trees per acre; a 10-foot radius would protect at most 28 trees per acre. The trees selected to daylight would be the best performing planted, rust-resistant white pine. No thinning would be allowed outside specified clearing limits.

### 2. **Promoting larch or ponderosa pine for large trees**

Daylight thinning may be allowed to release larch or ponderosa pine to promote large trees that can survive fire in the future and be available to re-seed future stands. The maximum reduction in snowshoe hare forage and cover would be 20 percent.

The number of trees selected for daylight thinning would vary, depending on local fire history, desired snag levels and management objectives. For example, to stay within the 20 percent loss limit, a clearing radius of 12 feet would result in

protecting a maximum of 20 trees per acre. A clearing radius of 15 feet would protect at most 12 trees per acre. No thinning would be permitted outside the clearing limits.

### 3. **Promoting lodgepole pine for old growth**

Where the choice has been made to manage lodgepole pine to develop old growth characteristics, thinning would be allowed. One approach is found in John Shaw's dissertation, "Silvicultural Systems for Maintenance of Structure in a Forest Landscape" (Shaw 2002).

### 4. **Where forage exceeds the range of historic conditions**

Thinning may be allowed when a broadscale assessment has determined that forage conditions exceed the range of historic conditions. Generally, this is when current conditions exceed historic, or when a disturbance occurs over a large area and one similar condition is created. For example, if a 50,000-acre fire burns within an LAU or LAUs, precommercial thinning would be allowed in part, but not all, of the burned area, to create diversity.



## Appendix H – TEPS animals

**Table H-1. How amendment would affect Threatened, endangered, proposed or sensitive animals\* whose habitat overlaps lynx habitat**

	Montana NFs										Idaho NFs					Utah NF	Wyoming NFs				Idaho BLM			Utah BLM
	Beaverhead	Deerlodge	Bitterroot	Custer	Flathead	Gallatin	Helena	Kootenai	Lewis & Clark	Lolo	Clearwater	Idaho Panhandle	Nez Perce	Salmon-Challis	Targhee	Ashley	Bridger-Teton	Bighorn	Shoshone	Lower Snake River	Upper Snake River	Upper Columbia	Salt Lake	
<b>Endangered</b>																								
<b>Mammals</b>																								
Gray wolf	+/-			+/-		+/-	+/-	+/-	+/-		+/-													
Woodland caribou											+/-													
<b>Birds</b>																								
Southwestern willow flycatcher															0			0						
<b>Fish</b>																								
Bonytail chub															+/-	+/-								
Colorado Squawfish															+/-	+/-								
Humpback chub															+/-	+/-								
Kendall Warm Springs dace															+/-	+/-								
Razorback sucker															+/-	+/-								
Sockeye salmon													+/-											
White sturgeon											+/-													
<b>Threatened</b>																								
<b>Mammals</b>																								
Canada lynx	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Gray wolf (00j rule)	+/-	+/-	+/-		+/-					+/-	+/-	+/-	+/-	+/-		+/-		+/-						
Grizzly bear	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-		+/-		+/-						
<b>Birds</b>																								
Bald eagle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			0			
Mexican spotted owl															+/-									

	Montana NFs										Idaho NFs					Utah NF	Wyoming NFs				Idaho BLM					Utah BLM
	Beaverhead	Deerlodge	Bitterroot	Custer	Flathead	Gallatin	Helena	Kootenai	Lewis & Clark	Lolo	Clearwater	Idaho	Panhandle	Nez Perce	Salmon-Challis	Targhee	Ashley	Bridger-Teton	Bighorn	Shoshone	Lower Snake River	Upper Snake River	Upper Columbia	Salt Lake		
<b>(Threatened, continued)</b>																										
<b>Fish</b>																										
Bull trout	+/-	+/-		+/-		+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-											+/-	
Chinook salmon		+/-												+/-	+/-			+/-	+/-							
Steelhead trout		+/-												+/-	+/-											
<b>Proposed</b>																										
<b>Birds</b>																										
Mountain plover							0	0								0			0							
<b>Sensitive</b>																										
<b>Mammals</b>																										
Bighorn sheep																										
California bighorn sheep	0	0	0	0	0	0	0	0	0	0	0	0	0													
Dwarf shrew																		+	+							
Fisher	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-			+/-		+/-					+/-	+/-	
Marten	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-					+/-	+/-							
Northern bog lemming	0	0	0	0	0	0	0	0	0	0	0	0	0													
Spotted bat																0										
Townsend's big-eared bat	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
Water vole	0	0	0	0	0	0	0	0	0	0	0	0	0					0	0							
Wolverine	+	+	+	+	+	+	+	+	+	+	+	+	+			+	+		+					+		
<b>Birds</b>																										
Baird's sparrow	0	0	0	0	0	0	0	0	0	0	0	0	0					0	0							
Black-backed woodpecker	+	+	+	+	+	+	+	+	+	+	+	+	+						+					+	+	
Boreal owl	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-		+/-	+/-	+/-							+/-	
Common loon	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0							
Flammulated owl	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0						0		
Fox sparrow																		0	0							

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	Montana NFs									Idaho NFs					Utah NF	Wyoming NFs				Idaho BLM			Utah BLM
	Beaverhead	Deerlodge	Bitterroot	Custer	Flathead	Gallatin	Helena	Kootenai	Lewis & Clark	Lolo	Clearwater	Idaho Panhandle	Nez Perce	Salmon-Challis	Targhee	Ashley	Bridger-Teton	Bighorn	Shoshone	Lower Snake River	Upper Snake River	Upper Columbia	Salt Lake
<b>(Sensitive, continued)</b>																							
Golden-crowned kinglet	-	-	-	-	-	-	-	-	-	-	-	-						-	-				
Golden eagle	0	0	0	0	0	0	0	0	0	0	0	0											
Great gray owl	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-		+/-	+/-						+/-
Hammond's flycatcher																							
Harlequin duck	0	0	0	0	0	0	0	0	0	0	0	0											
Loggerhead shrike	0	0	0	0	0	0	0	0	0	0	0	0						0	0				
Merlin	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-						+/-	+/-				
Mountain plover						0		0															
Mountain quail	0	0	0	0	0	0	0	0	0	0	0	0											
Northern goshawk	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-		+/-	+/-	+/-	+/-				+/-
Olive-sided flycatcher																					+/-	+/-	
Peregrine falcon	0			0				0			0		0	0		0	0		0				
Pygmy nuthatch																		0	0				
Red-naped sapsucker																						+	
Swainson's thrush																						+/-	
Three-toed woodpecker																							+
Trumpeter swan																0							
Williamson's sapsucker																						+	
White-headed woodpecker	+	+	+	+	+	+	+	+	+	+	+	+										+	
<b>Fish</b>																							
Artic grayling	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-											
Colorado River cutthroat trout																		+/-					
Inland redband trout	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-											
Ling	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-												
Sicklefin chub	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-											

	Montana NFs										Idaho NFs					Utah NF	Wyoming NFs				Idaho BLM					Utah BLM
	Beaverhead	Deerlodge	Bitterroot	Custer	Flathead	Gallatin	Helena	Kootenai	Lewis & Clark	Lolo	Clearwater	Idaho Panhandle	Nez Perce	Salmon-Challis	Targhee	Ashley	Bridger-Teton	Bighorn	Shoshone	Lower Snake River	Upper Snake River	Upper Columbia	Salt Lake			
<b>(Sensitive, continued)</b>																										
Snake River cutthroat trout															+/-			+/-								
Sturgeon chub	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-														
Torrent sculpin	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-														
West slope cutthroat trout	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-													
Yellowstone cutthroat trout	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-					+/-	+/-							
<b>Amphibians &amp; reptiles</b>																										
Boreal toad	+	+	+	+	+	+	+	+	+	+	+	+								+						
Coeur d'Alene salamander	0	0	0	0	0	0	0	0	0	0	0	0														
Northern leopard frog	+	+	+	+	+	+	+	+	+	+	+	+								+	+					
Spotted frog													0	0					0	0	0					
Wood frog																			0							
<b>Invertebrates</b>																										
Regal fritillary	0	0	0	0	0	0	0	0	0	0	0	0														
Tawny crescent butterfly	0	0	0	0	0	0	0	0	0	0	0	0														

\*Species documented or suspected to be present in lynx habitat

0	=	Species not affected by the alternatives
-	=	Adverse (negative) effects possible from implementing Alternatives B, C, D or E
+	=	Beneficial (positive) effects possible from implementing Alternatives B, C, D or E
+/-	=	Either adverse or beneficial effects from implementing Alternatives B, C, D or E

Sources for evaluating habitat effects include:

Brainerd 1985	Martin et al. 1951	Sibley 2000	Whitaker 1996
Brocke et al. 1991	NaturServe Explorer, Version 1.6 2002	Smith 1984	Zielnski & Cucera 1995
Ehrlich et al. 1988	Nussbaum et al. 1983	USDA FS 1999c	
Johnsgard 1990	Schmidt & Gilbert 1978	USDA FS 1999d	

# Appendix I – MIS species\*

**Table I-I. How amendment would affect management indicator species whose habitat overlaps lynx habitat**

	Montana NFs									Idaho NFs					Utah NF	Wyoming NFs		
	Beaverhead-Deerlodge	Bitterroot	Custer	Flathead	Gallatin	Helena	Kootenai	Lewis & Clark	Lolo	Clearwater	Idaho Panhandle	Oez Perce	Salmon-Challis	Targhee	Ashley	Bridger-Teton	Bighorn	Shoshone
<b>Mammals</b>																		
Beaver								+										
California bighorn sheep												0			0		0	
Bighorn sheep			0		0	0												
Black bear								+/-										
Bobcat								+										
Canada lynx								+/-										
Elk	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-
Fisher								+/-				+/-	+/-			+/-		
Gray wolf	+/-		+/-	+/-			+/-	+/-	+/-	+/-	+/-	+/-	+/-					+/-
Grizzly bear	+/-		+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-					+/-
Marten	+/-	+/-		+/-		+/-				+/-	+/-	+/-	+/-			+/-		
Montane vole	0																	
Moose	+									+	+	+				+		+
Mountain goat	0						0	0				0						0
Mountain lion								0										
Mule deer	+/-			+/-		+/-		+/-				+/-		+/-	+/-	+/-		+/-
Red squirrel												+/-	+/-				+/-	
Townsend's big-eared bat													0					
Water shrew	0																	
Western jumping mouse	0																	
White-tailed deer			+/-	+/-			+/-	+/-		+/-	+/-							
Wolverine								+/-					+/-					
Woodland caribou										+/-								

	Montana NFs									Idaho NFs					Utah NF	Wyoming NFs			
	Beaverhead-Deerlodge	Bitterroot	Custer	Flathead	Gallatin	Helena	Kootenai	Lewis & Clark	Lolo	Clearwater	Idaho Panhandle	Oez Perce	Salmon-Challis	Targhee	Ashley	Bridger-Teton	Bighorn	Shoshone	
	<b>Birds</b>																		
<i>Bald eagle</i>	0		0	0	0	0	0	0	0	0	0	0	0	0					0
<i>Belted kingfisher</i>	0									0									
<i>Black-backed woodpecker</i>														+					
<i>Blue grouse</i>	+							+											+
<i>Boreal owl</i>														+/-	+/-	+/-			
<i>Brewer's sparrow</i>			0													0			0
<i>Common loon</i>														0		0			
<i>Downy woodpecker</i>														+					
<i>Flammulated owl</i>														0	0	0			
<i>Golden eagle</i>								0							0				
<i>Great gray owl</i>													+/-	+/-		+/-			
<i>Hairy woodpecker</i>	+					+								+					+
<i>Harlequin duck</i>														0		0			
<i>Lark sparrow</i>																0			
<i>Lincoln's sparrow</i>															0				
<i>Mountain bluebird</i>													+						
<i>Northern goshawk</i>	+/-		+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-			+/-
<i>Northern flicker</i>														+					
<i>Northern oriole</i>			0																
<i>Ovenbird</i>			0																
<i>Peregrine falcon</i>	0		0	0			0	0	0	0		0	0						0
<i>Pileated woodpecker</i>	+/-	+/-		+/-		+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-						
<i>Prairie falcon</i>								0											
<i>Pygmy nuthatch</i>													0						
<i>Red-breasted nuthatch</i>																	+		
<i>Red-napped sapsucker</i>														+	+				
<i>Ruby-crowned kinglet</i>													+						
<i>Ruffed grouse</i>			0												0				0
<i>Three-toed woodpecker</i>	+							+						+	+	+			

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	Montana NFs									Idaho NFs					Utah NF	Wyoming NFs		
	Beaverhead-Deerlodge	Bitterroot	Custer	Flathead	Gallatin	Helena	Kootenai	Lewis & Clark	Lolo	Clearwater	Idaho Panhandle	Oez Perce	Salmon-Challis	Targhee	Ashley	Bridger-Teton	Bighorn	Shoshone
<b>(Birds, continued)</b>																		
Rufous-sided towhee			0															
Sage grouse														0				
Trumpeter swan													0			0		
Vesper sparrow												0						
Warbling vireo														0				
White-crowned sparrow														0				
White-tailed ptarmigan														0				
Williamson's sapsucker																		
Willow flycatcher	+																	
Yellow-bellied sapsucker																		
Yellow warbler			+															
<b>Fish</b>																		
Arctic grayling	+/-																	
Bonneville cutthroat trout																		+/-
Brook trout								+/-										
Bull trout				+/-														
Chinook salmon									+/-		+/-	+/-						
Colorado River cutthroat trout																		+/-
Cutthroat trout	+/-	+/-	+/-	+/-		+/-		+/-		+/-	+/-	+/-		+/-				
Largemouth bass			+/-															
Rainbow trout								+/-		+/-		+/-						+/-
Sculpin																		+/-
Snake River cutthroat trout																		+/-
Steelhead trout									+/-		+/-	+/-						
Trout					+/-		+/-											+/-
Westslope cutthroat trout									+/-									
Yellowstone cutthroat trout																		
<b>Amphibians &amp; reptiles</b>																		
Spotted frog														0				0
<b>Invertebrates</b>																		
Macro-invertebrates												+/-						

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\*The FS uses management indicator species; the BLM does not.  
Species listed in *italics* are also listed as threatened, endangered, proposed or sensitive species

- 0 = Species not affected by the alternatives  
- = Habitat likely reduced (negative) by implementing Alternatives B, C, D or E  
+ = Habitat likely improved (positive) by implementing Alternatives B, C, D or E  
+/- = Some habitat reduced, some improved by implementing Alternatives B, C, D or E

Sources for evaluating habitat effects include:

Brainerd 1985	Schmidt & Gilbert 1978
Brocke et al. 1991	Sibley 2000
Ehrlich et al. 1988	Smith 1984
Johnsgard 1990	USDA FS 1999c
Martin et al. 1951	USDA FS 1999d
NaturServe Explorer, Version 1.6 2002	Whitaker 1996
Nussbaum et al. 1983	Zielnski & Cucera 1995

## Appendix J – TEPS Plants

Table J-1. Threatened, Endangered, Proposed or Sensitive plants\* found in the amendment area

Scientific name	Common name	Idaho	Montana	Utah	Wyoming
<b>Threatened</b>					
<i>Spiranthes diluvialis</i>	Ute ladies' tresses	X			
<b>Endangered</b>					
None					
<b>Proposed</b>					
<i>Botrychium lineare</i>	Slender moonwort	X	X		
<b>Sensitive</b>					
<i>Adoxa moschatellina</i>	Musk-root		X		
<i>Agastache cusickii</i>	Cusick's horse-mint		X		
<i>Agoseris lackschewitzii</i>	Pink agoseris				X
<i>Allium acuminatum</i>	Tapertip onion		X		
<i>Allium parvum</i>	Small onion		X		
<i>Allotropa virgata</i>	Candystick	X	X		
<i>Amerorchis rotundifolia</i>	Round-leaved orchis		X		
<i>Anemone lyallii</i>	Lyall's wood-anemone				X
<i>Anemone narcissiflora ssp zephyra</i>	Zephyr windflower				X
<i>Antennaria aromatica</i>	Aromatic pussytoes				X
<i>Antennaria densifolia</i>	Dense-leaved antennaria		X		
<i>Antennaria flagellaris</i>	Stoloniferous pussytoes				X
<i>Antennaria monocephala</i>	Single-head pussytoes				X
<i>Aquilegia brevistyla</i>	Short-styled columbine		X		
<i>Aquilegia formosa var formosa</i>	Crimson columbine				X
<i>Aquilegia grahamii</i>	Graham's columbine			X	
<i>Arabis fecunda</i>	Sapphire rockcress		X		
<i>Arnica lonchophylla</i>	Northern arnica				X
<i>Artemisia norvegica var piceetorum</i>	Spruce wormwood			X	
<i>Asplenium trichomanes-ramosum</i>	Green spleenwort				X
<i>Astragalus lackschewitzii</i>	Lackschewitz's milkvetch		X		
<i>Astragalus paysonii</i>	Payson's milkvetch	X			X
<i>Astragalus shultziorum</i>	Shultz's milkvetch				X
<i>Athysanus pusillus</i>	Sandweed		X		
<i>Balsamorhiza macrophylla</i>	Large-leaved balsamroot		X		
<i>Bidens beckii</i>	Beck water-marigold		X		
<i>Blechnum spicant</i>	Deer-fern	X			
<i>Botrychium ascendens</i>	Upward-lobed moonwort	X	X		
<i>Botrychium crenulatum</i>	Wavy moonwort		X		
<i>Botrychium echo</i>	Reflected grapefern			X	
<i>Botrychium hesperium</i>	Western moonwort		X		
<i>Botrychium lanceolatum var lanceolatum</i>	Lance-leaved moonwort	X			
<i>Botrychium minganense</i>	Mingan Island moonwort	X			X
<i>Botrychium montanum</i>	Mountain moonwort	X	X		
<i>Botrychium paradoxum</i>	Peculiar moonwort		X	X	
<i>Botrychium pendunculolum</i>	Stalked moonwort	X			
<i>Botrychium pinnatum</i>	Northern moonwort	X			

## Appendix J

Scientific name	Common name	Idaho	Montana	Utah	Wyoming
<b>(Sensitive, continued)</b>					
<i>Botrychium simplex</i>	Least moonwort	X			
<i>Botrychium virginianum</i>	Rattlesnake fern				X
<i>Braya glabella</i>	Arctic braya				X
<i>Bryoria subdivergens</i>			X		
<i>Buxbaumia viridis</i>	Leafless bug-on-a-stick	X			
<i>Calamagrostis tweedi</i>	Cascade reedgrass	X			
<i>Cardamine constancei</i>	Constance's bittercress	X			
<i>Carex amplifolia</i>	Big-leaf sedge		X		
<i>Carex buxbaumii</i>	Buxbaum's sedge	X			
<i>Carex chordorrhiza</i>	Creeping sedge		X		
<i>Carex deweyana</i> var <i>bolanderi</i>	Bolander's sedge				X
<i>Carex diandra</i>	Lesser panicled sedge				X
<i>Carex flava</i>	Yellow sedge	X			
<i>Carex hendersonii</i>	Henderson's sedge	X			
<i>Carex idaho</i>	Idaho sedge		X		
<i>Carex leptalea</i>	Bristly-stalk sedge	X		X	X
<i>Carex limosa</i>	Mud sedge				X
<i>Carex livida</i>	Pale sedge	X	X		
<i>Carex luzulina</i> var <i>atropurpurea</i>	Black and purple sedge				X
<i>Carex microglochin</i>	False uncinia sedge				X
<i>Carex paupercula</i>	Poor sedge	X			
<i>Carex prairea</i>	Prairie sedge		X		
<i>Carex rostrata</i>	Beaked sedge		X		
<i>Castilleja covilleana</i>	Coville Indian paintbrush		X		
<i>Castilleja crista-galli</i>	Cockscomb paintbrush				X
<i>Castilleja gracillima</i>	Slender Indian paintbrush		X		
<i>Castilleja nivea</i>	Snow paintbrush				X
<i>Cetraria subalpina</i>			X		
<i>Cicuta bulbifera</i>	Bulbet-bearing water hemlock				X
<i>Cirsium eatonii</i> var <i>murdockii</i>	Murdock's thistle			X	
<i>Cirsium longistylum</i>	Long-styled thistle		X		
<i>Clarkia rhomboidea</i>	Common clarkia		X		
<i>Claytonia arenicola</i>	Sand springbeauty		X		
<i>Collema curtisporum</i>	Short-spored jelly lichen	X			
<i>Corydalis caseana</i>	Case's corydalis	X			
<i>Corydalis sempervirens</i>	Pale corydalis		X		
<i>Cryptogramma stelleri</i>	Fragile rockbrake				X
<i>Cymopterus evertii</i>	Evert's waterparsnip				X
<i>Cypripedium fasciculatum</i>	Clustered lady's slipper	X	X	X	
<i>Cypripedium parviflorum</i>	Small yellow lady's slipper		X		
<i>Cypripedium passerinum</i>	Sparrow's-egg lady's slipper		X		
<i>Dasynotus daubernmirei</i>	Daubenmire's dasynotus	X			
<i>Deschampsia danthonioides</i>	Annual hairgrass				X
<i>Descurainia torulosa</i>	Wyoming tansymustard				X
<i>Dodecatheon dentatum</i>	White shooting star	X			
<i>Draba borealis</i>	Boreal draba				X
<i>Draba brachstylis</i>	Shortstyle draba			X	
<i>Draba crassa</i>	Thick-leaf whitlow-grass				X

## Appendix J

Scientific name	Common name	Idaho	Montana	Utah	Wyoming
<b>(Sensitive, continued)</b>					
<i>Draba fladenizensis</i> var <i>pattersonii</i>	White arctic whitlow-grass				X
<i>Draba globosa</i>	Rockcress draba or Beavertip draba			X	X
<i>Draba juniperina</i>	Fewseed draba			X	
<i>Drosera anglica</i>	English sundew		X		X
<i>Drosera intermedia</i>	Spoon-leaved sundew	X			
<i>Drosera linearis</i>	Linear-leaved sundew		X		
<i>Dryopteris cristata</i>	Buckler fern	X	X		
<i>Dryopteris expansa</i>	Spreading woodfern				X
<i>Eburophyton austiniiae</i>	Phantom orchid	X			
<i>Eleocharis rostellata</i>	Beaked spikerush		X		
<i>Epilobium palustre</i>	Swamp willow-weed	X			
<i>Epipactis gigantea</i>	Giant helleborine	X	X		
<i>Equisetum sylvaticum</i>	Woodland horsetail				X
<i>Ericameria discoidea</i> var <i>linearis</i>	Narrowleaf goldenweed				X
<i>Erigeron asperugineus</i>	Idaho fleabane		X		
<i>Erigeron evermannii</i>	Evermann fleabane		X		
<i>Erigeron lackschewitzii</i>	Lackschewitz' fleabane		X		
<i>Erigeron untermannii</i>	Indian Canyon fleabane			X	
<i>Eriophorum chamissonis</i>	Russet cottongrass				X
<i>Eriophorum gracile</i>	Slender cottongrass		X		X
<i>Eriophorum viridicarinatum</i>	Green keeled cottongrass	X			
<i>Eritrichum howardii</i>	Howard forget-me-not				X
<i>Eupatorium occidentale</i>	Western boneset		X		
<i>Festuca hallii</i>	Hall's fescue				X
<i>Gaultheria hispidula</i>	Creeping snowberry	X			
<i>Gentianopsis simplex</i>	Hiker's gentian		X		
<i>Goodyera repens</i>	Northern rattlesnake-plantain		X		
<i>Grimmia brittoniae</i>			X		
<i>Grindelia howellii</i>	Howell's gum-weed		X		
<i>Halimolobos perplexa</i> var <i>lemhiensis</i>	Puzzling rockcress		X		
<i>Haplopappus carthamoides</i> var <i>subsquarrosus</i>	Beartooth large-flowered goldenweed		X		
<i>Haplopappus macronema</i> var <i>macronema</i>	Discoid goldenweed		X		
<i>Haplopappus insecticruris</i>	Bug-leg goldenweed	X			
<i>Heterocodon rariflorum</i>	Western pearl-flower		X		
<i>Hookeria lucens</i>	Clear moss	X			
<i>Howellia aquatilis</i>	Water howellia		X		
<i>Ipomopsis crebrifolia</i>	Compact gilia				X
<i>Iris versicolor</i>	Blueflag	X			
<i>Juncus hallii</i>	Hall's rush		X		
<i>Kalmia polifolia</i>	Pale laurel		X		
<i>Kelloggia galioides</i>	Milk kelloggia				X
<i>Kobresia sibirica</i>	Siberian kobresia				X
<i>Kobresia simpliciuscula</i>	Simple bog sedge			X	
<i>Lepidium huberi</i>	Huber's pepperweed			X	
<i>Lepidium integrifolium</i> var <i>integrifolium</i>	Entireleaved pepperweed			X	
<i>Lesquerella carinata</i> var <i>carinata</i>	Keeled bladderpod				X
<i>Lesquerella humilis</i>	Bitterroot bladderpod		X		
<i>Lesquerella paysonii</i>	Payson's bladderpod		X		X

## Appendix J

Scientific name	Common name	Idaho	Montana	Utah	Wyoming
<b>(Sensitive, continued)</b>					
<i>Lesquerella pulchella</i>	Beautiful bladderpod		X		
<i>Lomatium geyeri</i>	Geyer's biscuitroot		X		
<i>Lonicera caerulea</i> var <i>cauriana</i>	Western honeysuckle				X
<i>Lycopodiella inundata</i>	Northern bog clubmoss	X	X		
<i>Lycopodium dendroideum</i>	Groundpine clubmoss	X			
<i>Marsilea vestita</i> var <i>oligospora</i>	Pepperwort				X
<i>Meesia longiseta</i>	Messia	X			
<i>Meesia triquetra</i>			X		
<i>Mentzelia goodrichii</i>	Goodrich's blazingstar			X	
<i>Mertensia bella</i>	Oregon bluebells		X		
<i>Mimulus ampliatus</i>	Spacious monkeyflower	X			
<i>Mimulus clivicola</i>	Bank monkeyflower	X			
<i>Mimulus patulus</i>	Stalk-leaved monkeyflower		X		
<i>Mimulus primuloides</i>	Primrose monkeyflower		X		
<i>Monardella odoratissima</i> var <i>glauca</i>	Mountain wild-mint				X
<i>Najas guadalupensis</i>	Southern naiad				X
<i>Oenothera flava</i> var <i>acutissima</i>	Flaming Gorge evening-primrose			X	
<i>Ophioglossum pusillum</i>	Adder's tongue		X		
<i>Orobanche corymbosa</i> var <i>corymbosa</i>	Flat-top broomrape				X
<i>Orogenia fusiformis</i>	Tapered-root orogenia		X		
<i>Oxytropis podocarpa</i>	Stalked-pod crazyweed		X		
<i>Paeonia brownii</i>	Brown's peony				X
<i>Papaver kluanense</i>	Alpine poppy				X
<i>Parrya nudicaulis</i>	Naked-stemmed parrya				X
<i>Parrya rydbergii</i>	Naked stem wallflower			X	
<i>Pedicularis contorta</i> var <i>ctenophora</i>	Pink coil-beaked lousewort				X
<i>Pellaea suksdorfiana</i>	Smooth cliff-brake				X
<i>Penstemon absarokensis</i>	Absaroka beardtongue				X
<i>Penstemon lemhiensis</i>	Lemhi beardtongue		X		
<i>Penstemon payettensis</i>	Payette beardtongue		X		
<i>Penstemon uintahensis</i>	Unita Mountain beardtongue			X	
<i>Petasites sagittatus</i>	Arrowleaf coltsfoot	X			
<i>Phegopteris connectilis</i>	Northern beechfern	X			
<i>Phlox diffusa</i> ssp <i>scleranthifolia</i>	Diffuse phlox				X
<i>Phlox kelseyi</i> var <i>missoulensis</i>	Missoula phlox		X		
<i>Polygonum douglasii</i> ssp <i>austiniae</i>	Austin's knotweed		X		
<i>Polystichum braunii</i>	Braun's sword-fern	X			
<i>Potamogeton friesii</i>	Frie's pondweed				X
<i>Potamogeton obtusifolius</i>	Blunt-leaved pondweed		X		
<i>Potamogeton praelongus</i>	White-stemmed pondweed				X
<i>Potentilla palustris</i>	Marsh cinquefoil			X	
<i>Potentilla quinquefolia</i>	Five-leaf cinquefoil		X		
<i>Potentilla subjugata</i>	Twinleaf cinquefoil				X
<i>Primula incana</i>	Silvery primrose			X	
<i>Pyrocoma carthamoides</i> var <i>subsquarrosa</i>	Absaroka goldenweed				X
<i>Pyrocoma clementis</i> var <i>villosa</i>	Hairy tranquil goldenweed				X
<i>Ranunculus gelidus</i>	Timberline buttercup				X
<i>Ranunculus jovis</i>	Jove's buttercup		X		

Appendix J

Scientific name	Common name	Idaho	Montana	Utah	Wyoming
<b>(Sensitive, continued)</b>					
<i>Salix barrattiana</i>	Barratt's willow		X		
<i>Salix candida</i>	Hoary willow	X			X
<i>Saussurea weberi</i>	Weber's saw-wort		X		X
<i>Saxifraga tempestiva</i>	Storm saxifrage		X		
<i>Scheuchzeria palustris</i>	Pod grass		X		
<i>Scirpus cespitosus</i>	Tufted club-rush		X		
<i>Scirpus hudsonianus</i>	Hudson's Bay bullrush	X			
<i>Scirpus subterminalis</i>	Water bulrush		X		
<i>Scorpidium scorpioides</i>			X		
<i>Selaginella selaginoides</i>	Low spike-moss				X
<i>Shoshonea pulvinata</i>	Shoshonea		X		
<i>Silene repens var australis</i>	Creeping campion				X
<i>Sparganium natans</i>	Small bur-reed				X
<i>Sphagnum mendocinum</i>	Peatmoss	X			
<i>Stephanomeria fluminea</i>	Teton wire-lettuce				X
<i>Streptopus streptopoides var brevipes</i>	Kruhsea twisted stalk	X			
<i>Sullivantia hapemanii var hapemanii</i>	Hapeman's sullivantia				X
<i>Symphotrichum mollis</i>	Soft aster				X
<i>Synthyris platycarpa</i>		X			
<i>Thalictrum alpinum</i>	Alpine meadowrue		X		
<i>Townsendia condensata var anomala</i>	North Fork Easter daisy				X
<i>Townsendia montana var caeliliniensis</i>	Mountain townsendia			X	
<i>Trichophorum pumilum</i>	Pygmy bulrush				X
<i>Trientalis arctica</i>	Northern starflower	X			
<i>Trifolium eriocephalum ssp arcuatum</i>	Wooly-head clover		X		
<i>Trifolium gymnocarpon</i>	Hollyleaf clover		X		
<i>Triteleia grandiflora</i>	Large-flower triteleia				X
<i>Utricularia intermedia</i>	Flat-leaved bladderwort		X		
<i>Vaccinium oxycoccos</i>	Bog cranberry	X			
<i>Veratrum californicum</i>	California false-hellebore		X		
<i>Viburnum edule</i>	Squashberry				X
<i>Viola renifolia var brainerdii</i>	Kidney-leaf white violet				X
<i>Waldsteninia idahoensis</i>	Idaho strawberry	X			
<i>Xerophyllum tenax</i>	Western beargrass				X
Totals	216	51	88	21	76

\*Species listed include both FS sensitive and BLM special status plants



